

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512



May 3, 2001

Calpine, Western Regional Office
Gregory Lamberg
Director, Business Development
6700 Koll Center Parkway, Suite 200
Pleasanton, CA 94566

RE: Pastoria Expansion, Docket No. 01-AFC-2

Dear Mr. Lamberg:

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

Enclosed is the first round of data requests for the above-mentioned project. It is our understanding that you will submit an AFC supplement on May 29, 2001. This supplement may provide responses to our data requests. If the supplement responds to any of the data requests, please indicate that in your responses. It should also be noted that the supplemental could raise additional questions, therefore there may be an additional round of data requests. Written responses to the enclosed data requests are due to the Energy Commission staff on or before June 6, 2001.

If you are unable to provide the information requested, need additional time to provide the information, or object to providing it, you should send a written notice to both Commissioner Michal Moore, and to me within 15 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (e)).

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We look forward to receiving your responses to the data requests and your AFC supplement. If you have any questions, please feel free to contact Sandra Fromm, Siting Project Manager, at (916) 654-4206.

Sincerely,

Sandra Fromm, Siting Project Manager
Systems Assessment & Facilities Siting

Enc.

C: Jennifer Scholl, URS
Pastoria Expansion Proof of Service List
Docket (01-AFC-2)

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: AIR QUALITY

Author: Magdy Badr

BACKGROUND

The Environmental Protection Agency (EPA) has determined that the Best Available Control Technology (BACT) for NO_x emissions on Mid-Way Sunset Project is 2 ppm for one hour averaging time. Mid-Way Sunset Applicant has agreed to the new BACT level and revised their analysis to reflect NO_x emissions at 2 ppm for one hour averaging time. El Segundo Power Redevelopment Project is also proposing to achieve 2 ppm for one hour averaging time with 5 ppm ammonia slip. The NO_x analysis for the proposed Project is based on 2.5 ppm for one hour averaging time.

DATA REQUESTS

1. Please explain how the proposed project, Pastoria Energy Facility, 250 MW expansion, can achieve the BACT level of 2 ppm for NO_x emission. Also, please revise your analysis to reflect the new emissions levels, daily, quarterly and annual emissions.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: BIOLOGICAL RESOURCES

Author: Stuart Itoga and Rick York

BACKGROUND

In order to assess possible biological resource impacts of the Pastoria Energy Facility expansion, staff needs current information on the biological resources that may be affected by the transmission line reconductoring. Field surveys must be completed at the right time of year for information to be useful.

DATA REQUEST

2. Please provide a description of the habitats and sensitive species that may be affected by the transmission line reconductoring and information on recent field surveys conducted in the proposed transmission line upgrade corridor. Please provide an analysis of the amount (acreage) of each habitat type anticipated to be temporarily disturbed during transmission line reconductoring and proposed mitigation measures to be implemented to avoid or reduce habitat and species impacts.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: CULTURAL RESOURCES

Author: Dorothy Torres

BACKGROUND

Information docketed April 04, 2001 identified an area between the new tap point and PG&E's McCall Substation that would need to be reconductored.

DATA REQUEST

3. Please conduct and submit the results of a literature/records search that includes an area of at least a ½ mile radius around the transmission line that will be reconductored and that addresses archeological, built environment, and traditional cultural resources that might be located in the vicinity of the reconductoring. Please include information regarding the existing transmission line that will be reconductored.
4. Please conduct and submit the results of a field survey that extends at least 200 feet from the centerline of the T-line to be reconductored. The field survey should identify both potential archeological, built environment, and traditional cultural resources. Include information regarding the historical context and age of the transmission line that will be reconductored.
5. Please contact the Native American Heritage Commission to obtain the location of sacred sites and the names of representatives of the Native American community who wish to be informed regarding construction disturbances in the area. Send a letter to the Native American groups and individuals on the list and submit copies of the letters.
6. Please provide a description of the activity necessary to reconductor the transmission line. Please include information regarding the construction equipment to be used and an explanation of any ground disturbance. Please indicate any poles or other infrastructure components that will be replaced.
7. Please provide copies of completed Department of Parks and Recreation 523 forms for any cultural resources more than 45 years old identified as a result of the cultural resource inventory.
8. If any of the identified cultural resources will be impacted by the reconductoring activities, please evaluate the significance of the resource under CEQA Section 15064.5, (a), (3), (A)(B)(C) & (D). The discussion should include a statement of significance, the period of significance, the defining characteristics of the resource, and details of the aspects of integrity (location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, Chapter 11.5, Section 4852(c)).

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: HAZARDOUS MATERIALS MANAGEMENT

Author: Alvin Greenberg, Ph.D.

BACKGROUND

Additional information is needed on the identity and toxicity of hazardous materials proposed for use at the Pastoria Expansion project.

DATA REQUEST

9. Please provide the identity and an MSDS (or the informational equivalent) for the following hazardous materials listed in Table 3.4.10-1.
- Oxygen scavenger, 30% concentration
 - Neutralizing amine, 20% concentration
 - Phosphate, 20% concentration
 - Bromine biocide and biodispersant
 - Nalco 1316
 - Scale inhibitors
 - Polymer

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: LAND USE

Author: Amanda Stennick

BACKGROUND

In the Pastoria System Impacts Study submitted in March 2001, it states that an upgrade to a 230kV line will need to occur between the "new tap point and PG&E's McCall substation."

DATA REQUEST

10. Please provide the general plan designation and zoning along the proposed upgraded transmission corridor.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: PROJECT OVERVIEW

Author: Sandra Fromm

BACKGROUND

Supplemental information filed on March 19,, 2001 indicates that the project will require an upgrade to the transmission system from the new tap point to McCall's substation.

11. Please provide a scaled map clearly depicting the proposed transmission line upgrade or reconductor route and the immediately surrounding vicinity.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: POWER PLANT RELIABILITY

Author: Steve Baker

BACKGROUND

One way of assuring adequate reliability is to provide redundant examples of critical pieces of mechanical equipment.

DATA REQUEST

12. Table 4.3-1 of the AFC states that there will be three 50-percent auxiliary cooling water pumps. Section 4.3.2.2 of the AFC states there will be two 50-percent auxiliary cooling water pumps. Please clarify how many such pumps will be installed.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: TRAFFIC AND TRANSPORTATION

AUTHOR: James Fore

BACKGROUND

The Application For Certification (AFC) for the Pastoria Energy Facility 250 MW Expansion (PEF Expansion) Section 5.11.2.3 indicates that, when possible and cost effective, heavy equipment and machinery will be transported to the area by rail. The heavy equipment and machinery is to be off loaded at the Union Pacific and Southern Pacific Company Railroad Arvin Branch station and transported by truck to the site. Attachment J Section 5.11.2.2.1 of the AFC indicates the roadways to be used in the transportation of the heavy equipment and machinery from the Arin Branch Station. The AFC does not give any weight or load limitations associated with the route.

DATA REQUEST

13. Please indicate whether or not the heavy equipment and machinery to be transported to the plant site exceeds weight and load limitations.

BACKGROUND

There appears to be a discrepancy between the combined construction period (i.e. 40 months) for the approved PEF/PEF Expansion as indicated in Section 3.8 (Project Construction), and Socioeconomics Section 5.10.2.1, which indicates a period of 42 months.

Table 3.8.3 PROJECT MANPOWER BY CRAFT page 3.72 shows a manpower schedule that reflects only the manpower requirements for the construction of the PEF without the PEF Expansion project.

DATA REQUEST

14. Please indicate the onsite construction time period and manpower requirements for both the PEF and PEF Expansion.

BACKGROUND

The PEF Expansion AFC Table 5.11-1a, page 5.11-3 PLANT CONSTRUCTION WORKFORCE DISTRIBUTION PEF AND PEF EXPANSION indicates the distribution of the workforce commuting from the different communities. The columns for the Average Local Workforce, Average Non-Local Workforce, and Total Average Workforce do not appear to have the correct averages for the combined local and non-local workers. This estimate of the average workforce distribution is used in Table 5.11-1b, page 5.11-4 to calculate the number of vehicle trips.

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
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DATA REQUEST

15.
 - a. Please correct Table 5.11-1a or indicate the method of calculating the average local and non-local workforce for both projects. Please adjust Table 5.11-1b to reflect the changes made to Table 5.11-1a.
 - b. The distribution of the workforce driving to the plant is also used to determine the impact on the level of service (LOS) for the various roadways in the area. Since the information shown in Table 5.11-1a was used to determine possible changes in the LOS for the area roadways. Please make the necessary modification to Table 5.11-2 to reflect the corrections to Table 5.11-1a.

BACKGROUND

The stack associated with the PEF Expansion exceeds 200 feet in height, this will require notifying the Federal Aviation Authority (FAA). Information in Volume II (FAA Aeronautical Study) references the three stacks associated with 99-AFC-7, however the additional fourth stack associated with the additional 250 MW expansion is not referenced.

DATA REQUEST

16. Please indicate when you will submit the necessary information to the FAA to determine what lighting and marking requirements will be required for the new stack. Please provide a copy of said application to the FAA.

PASTORIA ENERGY FACILITY 250 MW EXPANSION
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01-AFC-2

TECHNICAL AREA: TRANSMISSION SYSTEM ENGINEERING

Author: Mark Hesters

BACKGROUND

Staff needs a complete interconnection study that analyzes the Pastoria Project with the required downstream facilities. This study should analyze whether or not the new electric network with the Pastoria Project and the required downstream facilities meets applicable reliability criteria and standards.

DATA REQUEST

17. Please provide a complete interconnection study that demonstrates that the Pastoria Project and its associated downstream facilities can be reliably accommodated by the existing transmission system. The study should assure the project's compliance with North American Electric Reliability Council Planning Standards, Western System Coordinating Council and the California Independent System Operator reliability criteria. The interconnection study should confidently identify whether or not further downstream facilities are required for the reliable interconnection of the project.

DATA REQUEST

18. Please describe any considered transmission line alternatives, especially those related to the remedial action scheme for the Big Creek hydroelectric system. Were any alternatives to the proposed tie in of Big Creek generation to the Pine Flat – McCall 230 kV line considered. If so, please describe these alternatives and indicate the preferred alternative?

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: VISUAL RESOURCES

Author: William Walters, Gary Walker

BACKGROUND

Information in the AFC on plume modeling results provided by the applicant for the current project referred to the results of the previously approved project (99-AFC-7). In its review of this material, Staff noted that the moisture content units used in the original Pastoria Energy Facility Project (99-AFC-7) HRSG CSVP modeling analysis may not be correct, which could significantly effect the HRSG plume modeling results. In conversations with the consultant who prepared the CSVP model for the original Pastoria project, it came to light after further review of the Fortran subroutines included in the CSVP model that the moisture content units that should be input into the CSVP.EXE program module is weight fraction, and it appears that the moisture content units used in the original Pastoria analysis were volume fraction/mole fraction.

DATA REQUEST

19. Please identify whether the correct moisture content units were used in the Pastoria Energy Facility (99-AFC-7) HRSG plume analysis, and if not identify the necessary correction.

BACKGROUND

Visual simulations provided for KOP3 of this project only depicts three stacks. Staff needs a visual simulation of the proposed project including the additional stack associated with this project at a life-size scale to evaluate the visual impacts of the project.

DATA REQUEST

20. Please provide five sets of 11" x 17" high-quality color photocopies at life-size scale of the existing view toward the proposed project site from KOP 3.
21. Please provide five sets of 11" x 17" high-quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP 3.

BACKGROUND

The application for the Pastoria 250 MW Expansion Project (01-AFC-2, p.3-16) as well as the application for the original Pastoria Energy Facility (99-AFC-7, p.3.4-8) state that the HRSG exhaust stacks will be 213 feet tall. However, the Commission Decision on the Pastoria Energy Facility (p.11) states that the stacks will be 200 feet tall.

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DATA REQUEST

22. Please explain the discrepancy between the height of the HRSG stacks as specified on p.11 of the Commission Decision on the Pastoria Energy Facility (200 feet) and the height as specified on p.2.4-8 in the AFC for the Pastoria Energy Facility (p.3.4-8) and on p.3-16 in the AFC for the Pastoria 250 MW Expansion Project (213 feet).

**PASTORIA ENERGY FACILITY 250 MW EXPANSION
DATA REQUEST
01-AFC-2**

TECHNICAL AREA: SOIL AND WATER RESOURCES

Author: Lorraine White

BACKGROUND

As proposed, this project will expand the name plate capacity of the already approved Pastoria Energy Facility (PEF) by 250 MW through the installation of an additional combustion turbine and steam turbine. As a result, water use at the facility will increase on average from 3,912 acre-feet per year to 5,864 acre-feet per year. The applicant has executed contracts with Wheeler Ridge-Maricopa Water Storage District for the primary water supply and Kern Water Bank Authority (KWBA) for back-up water supplies. These agreements specify delivery obligations and constraints throughout the life of the agreements. In addition, the applicant indicated in their response to Data Adequacy Comments that they will implement a replenishment program to ensure adequate water supplies.

DATA REQUEST

23. In the Options and Water Service Agreement Section 5.9 of the contract between Azurix and KWBA it is stated that Azurix is allowed to obtain "other water" for delivery to the project when the KWBA does not deliver back-up water. Please define those sources of water that qualify as "other water" and provide a discussion on the extent to which "other water" may be needed by the project.
24. Please provide details of the replenishment program to be implemented throughout the life of the project to ensure adequate water supplies. Please specify the processes or agreements by which this program will be implemented with the KWBA, Kern County Water Agency and or any other agency that may be affected.